

## SEQUENCE LISTING

<110> Sueishi, Katsuo  
Yonemitsu, Yoshikazu  
Yamashita, Akihisa  
Yoshimura, Akihiko  
Hasegawa, Mamoru

<120> Methods of Treating Inflammatory Diseases  
Associated With Bone Destruction (as amended)

<130> 50026/055001

<150> PCT/JP2004/002887

<151> 2004-03-05

<150> JP 2003-075964

<151> 2003-03-19

<160> 6

<170> PatentIn version 3.1

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<212> DNA

<213> Homo sapiens

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<221> CDS

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Thr Leu Cys Thr Ala Arg Pro Ser Pro Thr Leu Pro Glu Gln Asp Ala	
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ctc ccc tcc tcg gag gat gat gat gat gat gac tcc tct tca gag	144
Leu Pro Ser Ser Glu Asp Asp Asp Asp Asp Asp Ser Ser Ser Glu	
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gag aaa gaa aca gat aac acc aaa cca aac ccc gta gct cca tat tgg	192
Glu Lys Glu Thr Asp Asn Thr Lys Pro Asn Pro Val Ala Pro Tyr Trp	
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aca tcc cca gaa aag atg gaa aag aaa ttg cat gca gtg ccg gct gcc	240
Thr Ser Pro Glu Lys Met Glu Lys Lys Leu His Ala Val Pro Ala Ala	
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aag aca gtg aag ttc aaa tgc cct tcc agt ggg acc cca aac ccc aca	288
Lys Thr Val Lys Phe Lys Cys Pro Ser Ser Gly Thr Pro Asn Pro Thr	
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gga ggc tac aag gtc cgt tat gcc acc tgg agc atc ata atg gac tct	384
Gly Gly Tyr Lys Val Arg Tyr Ala Thr Trp Ser Ile Ile Met Asp Ser	
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gtg gtg ccc tct gac aag ggc aac tac acc tgc att gtg gag aat gag	432
Val Val Pro Ser Asp Lys Gly Asn Tyr Thr Cys Ile Val Glu Asn Glu	
130 135 140	
tac ggc agc atc aac cac aca tac cag ctg gat gtc gtg gag cgg tcc	480
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cct cac cgg ccc atc ctg caa gca ggg ttg ccc gcc aac aaa aca gtg	528
Pro His Arg Pro Ile Leu Gln Ala Gly Leu Pro Ala Asn Lys Thr Val	
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gcc ctg ggt agc aac gtg gag ttc atg tgt aag gtg tac agt gac ccg	576
Ala Leu Gly Ser Asn Val Glu Phe Met Cys Lys Val Tyr Ser Asp Pro	
180 185 190	
cag ccg cac atc cag tgg cta aag cac atc gag gtg aat ggg agc aag	624
Gln Pro His Ile Gln Trp Leu Lys His Ile Glu Val Asn Gly Ser Lys	
195 200 205	
att ggc cca gac aac ctg cct tat gtc cag atc ttg aag gta atc atg	672
Ile Gly Pro Asp Asn Leu Pro Tyr Val Gln Ile Leu Lys Val Ile Met	
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Ala Pro Val Phe Val Gly Gln Ser Thr Gly Lys Glu Thr Thr Val Ser	
225 230 235 240	
ggg gct caa gtt cct gtg ggc agg ctc agt tgc ccc cga atg gga tca	768
Gly Ala Gln Val Pro Val Gly Arg Leu Ser Cys Pro Arg Met Gly Ser	
245 250 255	
ttc ctc acg ctt cag gca cac aca ctc cat ctc agt agg gat cta gcc	816
Phe Leu Thr Leu Gln Ala His Thr Leu His Leu Ser Arg Asp Leu Ala	
260 265 270	
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35 40 45

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50 55 60

Thr Ser Pro Glu Lys Met Glu Lys Lys Leu His Ala Val Pro Ala Ala  
65 70 75 80

Lys Thr Val Lys Phe Lys Cys Pro Ser Ser Gly Thr Pro Asn Pro Thr  
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Leu Arg Trp Leu Lys Asn Gly Lys Glu Phe Lys Pro Asp His Arg Ile  
100 105 110

Gly Gly Tyr Lys Val Arg Tyr Ala Thr Trp Ser Ile Ile Met Asp Ser  
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Val Val Pro Ser Asp Lys Gly Asn Tyr Thr Cys Ile Val Glu Asn Glu  
130 135 140

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145 150 155 160

Pro His Arg Pro Ile Leu Gln Ala Gly Leu Pro Ala Asn Lys Thr Val  
165 170 175

Ala Leu Gly Ser Asn Val Glu Phe Met Cys Lys Val Tyr Ser Asp Pro  
180 185 190

Gln Pro His Ile Gln Trp Leu Lys His Ile Glu Val Asn Gly Ser Lys  
195 200 205

Ile Gly Pro Asp Asn Leu Pro Tyr Val Gln Ile Leu Lys Val Ile Met  
210 215 220

Ala Pro Val Phe Val Gly Gln Ser Thr Gly Lys Glu Thr Thr Val Ser  
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Gly Ala Gln Val Pro Val Gly Arg Leu Ser Cys Pro Arg Met Gly Ser  
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Phe Leu Thr Leu Gln Ala His Thr Leu His Leu Ser Arg Asp Leu Ala  
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 Thr Pro Arg Asp Gly Gly Arg Gln Arg Gly Glu Pro Asp Pro Arg Asp  
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 Ala Leu Thr Gln Gln Val His Val Leu Ser Leu Asp Gln Ile Arg Ala  
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 Ile Arg Asn Thr Asn Glu Tyr Thr Glu Gly Pro Thr Val Val Pro Arg  
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 Pro Gly Leu Lys Pro Ala Pro Arg Pro Ser Thr Gln His Lys His Glu  
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 Arg Leu His Gly Leu Pro Glu His Arg Gln Pro Pro Arg Leu Gln His  
 85 90 95  
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 Ser Gln Val His Ser Ser Ala Arg Ala Pro Leu Ser Arg Ser Ile Ser  
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 Thr Val Ser Ser Gly Ser Arg Ser Ser Thr Arg Thr Ser Thr Ser Ser  
 115 120 125  
 agc tcc tct gaa cag aga ctg cta gga tca tcc ttc tcc tcc ggg cct 432  
 Ser Ser Ser Glu Gln Arg Leu Leu Gly Ser Ser Phe Ser Ser Gly Pro  
 130 135 140  
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 Val Ala Asp Gly Ile Ile Arg Val Gln Pro Lys Ser Glu Leu Lys Pro  
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 Gly Glu Leu Lys Pro Leu Ser Lys Glu Asp Leu Gly Leu His Ala Tyr

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Arg Cys Glu Asp Cys Gly Lys Cys Lys Cys Lys Glu Cys Thr Tyr Pro				
	180	185	190	
agg cct ctg cca tca gac tgg atc tgc gac aag cag tgc ctt tgc tcg				624
Arg Pro Leu Pro Ser Asp Trp Ile Cys Asp Lys Gln Cys Leu Cys Ser				
	195	200	205	
gcc cag aac gtg att gac tat ggg act tgt gta tgc tgt gtg aaa ggt				672
Ala Gln Asn Val Ile Asp Tyr Gly Thr Cys Val Cys Cys Val Lys Gly				
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Leu Phe Tyr His Cys Ser Asn Asp Asp Glu Asp Asn Cys Ala Asp Asn				
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cca tgt tct tgc agc cag tct cac tgt tgt aca cga tgg tca gcc atg				768
Pro Cys Ser Cys Ser Gln Ser His Cys Cys Thr Arg Trp Ser Ala Met				
	245	250	255	
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Gly Val Met Ser Leu Phe Leu Pro Cys Leu Trp Cys Tyr Leu Pro Ala				
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aag ggt tgc ctt aaa ttg tgc cag ggg tgt tat gac cgg gtt aac agg				864
Lys Gly Cys Leu Lys Leu Cys Gln Gly Cys Tyr Asp Arg Val Asn Arg				
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Pro Gly Cys Arg Cys Lys Asn Ser Asn Thr Val Cys Cys Lys Val Pro				
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 Val Ala Asp Gly Ile Ile Arg Val Gln Pro Lys Ser Glu Leu Lys Pro  
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 Ala Gln Asn Val Ile Asp Tyr Gly Thr Cys Val Cys Cys Val Lys Gly  
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Lys Ala Val Val Met Thr Arg Asp Asp Ser Ser Gly Gly Trp Phe Pro	
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cag gaa gga ggc ggg atc agt cgc gtc ggc gtg tgt aag gtc atg cac	144
Gln Glu Gly Gly Gly Ile Ser Arg Val Gly Val Cys Lys Val Met His	
35 40 45	
cct gaa ggc aac gga cga agc ggc ttt ctc atc cat ggc gag cga cag	192
Pro Glu Gly Asn Gly Arg Ser Gly Phe Leu Ile His Gly Glu Arg Gln	
50 55 60	
aaa gac aaa ctg gtg gta ttg gaa tgc tat gtc aga aag gac ttg gtc	240
Lys Asp Lys Leu Val Val Leu Glu Cys Tyr Val Arg Lys Asp Leu Val	
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Tyr Thr Lys Ala Asn Pro Thr Phe His His Trp Lys Val Asp Asn Arg	
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Lys Phe Gly Leu Thr Phe Gln Ser Pro Ala Asp Ala Arg Ala Phe Asp	
100 105 110	
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Arg Gly Val Arg Lys Ala Ile Glu Asp Leu Ile Glu Gly Ser Thr Thr	
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Ser Ser Ser Thr Leu His Asn Glu Ala Glu Leu Gly Asp Asp Asp Val	
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Phe Thr Thr Ala Thr Asp Ser Ser Ser Asn Ser Ser Gln Lys Arg Glu	
145 150 155 160	
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Pro Thr Thr Arg Thr Ile Ser Ser Pro Thr Ser Cys Glu His Arg Lys	
165 170 175	
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Ile Tyr Thr Leu Asp Pro Tyr Pro Met Asp His Tyr His Pro Asp Gln	
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Arg Leu Pro Arg Ser Tyr Pro Gln Val Thr Phe Pro Glu Asp Asp Glu	
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Glu Ile Val Arg Ile Asn Pro Arg Glu Lys Ile Trp Met Thr Gly Tyr	
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Glu Asp Ala Asp Ser Tyr Val Arg Phe Ala Lys Gly Glu Val Pro Lys	
245 250 255	
cac gaa tat acc tat ccc tat gtt gat tct tcg gac ttc ggc ttc ggg	816
His Glu Tyr Thr Tyr Pro Tyr Val Asp Ser Ser Asp Phe Gly Phe Gly	
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Arg Asp Met Phe Asn His Glu Glu Asn Arg Arg Gly His Cys Gln Asp	
305 310 315 320	
gcg ccc gac gcc gtg aga act tgc att cgc cgg gtg agc tgt atg tgg	1008
Ala Pro Asp Ala Val Arg Thr Cys Ile Arg Arg Val Ser Cys Met Trp	
325 330 335	
tgc gcg gac agc atg ctg tac cac tgt atg tcc gac ccc gag gga gac	1056
Cys Ala Asp Ser Met Leu Tyr His Cys Met Ser Asp Pro Glu Gly Asp	
340 345 350	
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Tyr Thr Asp Pro Cys Ser Cys Asp Thr Ser Asp Glu Lys Phe Cys Leu	
355 360 365	
cgg tgg atg gct cta att gcc ttg tct ttc ctg gcc cct tgt atg tgc	1152
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Cys Tyr Leu Pro Leu Arg Ala Cys His Arg Cys Gly Val Met Cys Arg	
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Pro	Glu	Gly	Asn	Gly	Arg	Ser	Gly	Phe	Leu	Ile	His	Gly	Glu	Arg	Gln	
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Ser	Ser	Ser	Thr	Leu	His	Asn	Glu	Ala	Glu	Leu	Gly	Asp	Asp	Asp	Val	
	130					135					140					
Phe	Thr	Thr	Ala	Thr	Asp	Ser	Ser	Ser	Asn	Ser	Ser	Gln	Lys	Arg	Glu	
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Pro	Thr	Thr	Arg	Thr	Ile	Ser	Ser	Pro	Thr	Ser	Cys	Glu	His	Arg	Lys	
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Ile	Tyr	Thr	Leu	Asp	Pro	Tyr	Pro	Met	Asp	His	Tyr	His	Pro	Asp	Gln	
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Arg	Leu	Pro	Arg	Ser	Tyr	Pro	Gln	Val	Thr	Phe	Pro	Glu	Asp	Asp	Glu	
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Glu	Asp	Tyr	Arg	His	Ala	Pro	Val	Arg	Gly	Lys	Tyr	Leu	Asp	Thr	Thr	
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Glu	Asp	Ala	Asp	Ser	Tyr	Val	Arg	Phe	Ala	Lys	Gly	Glu	Val	Pro	Lys	
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His	Glu	Tyr	Thr	Tyr	Pro	Tyr	Val	Asp	Ser	Ser	Asp	Phe	Gly	Phe	Gly	
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Glu	Asp	Pro	Lys	Gly	Ser	Val	Ile	Lys	Thr	Gln	Pro	Pro	Arg	Ala	Lys	
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Ala Pro Asp Ala Val Arg Thr Cys Ile Arg Arg Val Ser Cys Met Trp		
	325	330 335
Cys Ala Asp Ser Met Leu Tyr His Cys Met Ser Asp Pro Glu Gly Asp		
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Tyr Thr Asp Pro Cys Ser Cys Asp Thr Ser Asp Glu Lys Phe Cys Leu		
	355	360 365
Arg Trp Met Ala Leu Ile Ala Leu Ser Phe Leu Ala Pro Cys Met Cys		
	370	375 380
Cys Tyr Leu Pro Leu Arg Ala Cys His Arg Cys Gly Val Met Cys Arg		
385	390	395 400
Cys Cys Gly Gly Lys His Lys Ala Ala Ala		
	405	410